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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,545	03/20/2001	Bruce D. Melick	P04409US1	2555
22885	7590	04/21/2005	EXAMINER	
MCKEE, VOORHEES & SEASE, P.L.C. 801 GRAND AVENUE SUITE 3200 DES MOINES, IA 50309-2721			SEDIGHIAN, REZA	
			ART UNIT	PAPER NUMBER
			2633	

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/812,545	MELICK ET AL.	
	Examiner	Art Unit	
	M. R. Sedighian	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-4, 19, 21-28, 30, 31, 38-43, 45-47, 49, 50 and 57-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 19, 21-28, 30-31, 38-43, 45-47, 49-50, 57-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☒ Other: _____

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1. This communication is responsive to applicant's 10/19/04 amendments in the application of Melick et al. filed 3/20/01. The amendments have been entered. Claims 1-4, 19, 21-28, 30-31 38-43, 45-47, 49-50, 57-61 are now pending.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 19, 21-28, 30-31, 38-43, 45-47, 49-50, and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by Cox et al. (US Patent No: 5,050,189).

Regarding claims 1, 19, 21, 23, 38, 57, and 28, 47, Cox teaches a method of transmitting data (col. 1, lines 5-10 and 10, fig. 1), comprising: receiving a digital bit of data (col. 5, lines 60-63, col. 6, lines 1-3) from a memory unit (28, fig. 1 and col. 7, lines 39-53); transforming (34, fig. 1) the bit of data into a transmission pulse (col. 7, lines 64-68, col. 8, lines 1-4 and 20, figs. 2, 4, 5), the transmission pulse having a pulse characteristic selected from a set of three or more predetermined pulse characteristics (col. 8, lines 5, 16, 34 and 22, fig. 2, note that pulse 20 has a pulse duration, or an interval 22, shown in fig. 2), one of which is corresponding to the bit of data (col. 8, lines 15-21, 32-35); and transmitting the transmission pulse (20, figs. 2, 4, 5) over a guided medium (14, fig. 1 and col. 8, line 25). As to claims 19 and 28, Cox further teaches

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transmitting the pulse signal as a pulse of light (col. 8, lines 22-31) from the transmitter to a receiver (col. 5, lines 29-48) over a fiber optic cable (col. 8, lines 32).

Regarding claim 2, Cox teaches the pulse characteristic corresponds to numbers 0 through 9 (col. 6, lines 33-48).

Regarding claims 3, 30, and 49, Cox teaches the data is in the form of universal character encoding (col. 6, lines 38-40).

Regarding claims 4, 31, and 50, Cox teaches receiving the transmission pulse from the guided medium (col. 5, lines 35-37); and transforming the transmission pulse into a digital bit of data (col. 5, lines 37-40).

Regarding claims 22 and 25-26, Cox further teaches the transmission pulse can be transmitted as a pulse of light (col. 8, lines 30-31) and the pulse of light can be transmitted over a fiber medium (col. 8, line 32).

Regarding claim 24, Cox teaches the pulse characteristics are pulse durations (col. 6, lines 19-21, col. 8, line 11 and 22, fig. 2).

Regarding claim 27, Cox teaches the pulse characteristic is a pulse position (col. 8, lines 32-35).

Regarding claim 39, Cox teaches the transmission pulse characteristics corresponding to the bits of data is the transmission pulses position in time (figure 2 shows transmission pulses 20 that are positioned or repeated at time intervals 22).

Regarding claim 40, Cox teaches the transmission pulse characteristic corresponding to the bits of data is the duration between transmission pulses (col. 8, lines 5-13).

Regarding claim 41, Cox teaches the transmission pulse characteristic corresponding to the bits of data is the amplitude of the transmission pulse (col. 8, lines 32-35).

Regarding claim 42, Cox teaches the transmission pulse characteristic corresponding to the bits of data is the duration of the transmission pulses (col. 8, line 11).

Regarding claim 43, Cox teaches the transmission pulse characteristic corresponding to the bits of data is the phase of the transmission pulses (col. 8, line 34).

Regarding claim 45, Cox teaches the data is in the form of universal character encoding (col. 6, lines 38-40).

Regarding claim 46, Cox teaches receiving the transmission pulse from the guided medium (col. 5, lines 35-37); and transforming the transmission pulse into a digital bits of data corresponding to the specific characteristics of the transmission pulse (col. 5, lines 37-40).

4. Claims 58-61 are rejected under 35 U.S.C. 102(e) as being anticipated by McCorkle et al. (US Patent No: 6,700,939).

Regarding claim 58, McCorkle teaches a method of transmitting data (col. 2, lines 51-65), comprising: representing at least one bit of data by varying a pulse characteristic of a time modulated ultrawideband pulse (col. 4, lines 48-52, col. 5, lines 30-45, col. 9, lines 59-66, col. 14, lines 40-55), wherein the pulse characteristic is selected to be one of a set of at least three pulse characteristic based on the value of the at least one bit of data (col. 5, lines 40-45), and transmitting the time modulated ultrawideband pulse over a guided medium (col. 9, lines 59-66, col. 10, lines 53-59 and 121, 108, 110, fig. 1).

Regarding claim 59, McCorkle teaches each of the pulse characteristic within the set is a pulse duration (col. 14, lines 55-57).

Regarding claim 60, McCorkle teaches each of the pulse characteristic within the set is a pulse position (col. 4, lines 52-55, col. 9, lines 55-57).

Regarding claim 61, McCorkle teaches each of the pulse characteristic within the set is a pulse spacing (col. 9, lines 37-40).

5. Applicant's arguments filed 10/19/04 have been fully considered but they are not persuasive.

Remark states all the claims 1-4, 19, 21-28, 30-31, 38-43, 45-47, 49-50, and 57 require a "transmission pulse" or "transmission pulses", and what are referred to as pulses in Cox are not "transmission pulses" as claimed because the pulses of Cox are part of a continuous signal. However, Cox clearly teaches transmission of sine pulse waveforms 20 (col. 4, lines 49-53, col. 5, lines 62-64, col. 8, line 1 and 20, fig. 2), and therefore, the signals generated and transmitted by the transceiver 10 of Cox are transmission pulses. As to a "transmission pulse" that is not part of a continuous signal, for example, such limitations are not recited in any of the above claims. Claims of the present application broadly recites "transmission pulse", or "transmission pulses", and Cox clearly teaches transmission pulses. Applicant's attention is directed that during the prosecution of a pending patent application the terms found in the claims should be given the broadest reasonable interpretation, *See in re Pearson*, 181 USPQ 641 (CCPA 1974).

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6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

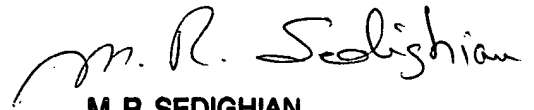
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. R. Sedighian whose telephone number is (571) 272-3034. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


M. R. SEDIGHIAN
PRIMARY EXAMINER

OK.
4/7/05
MRS

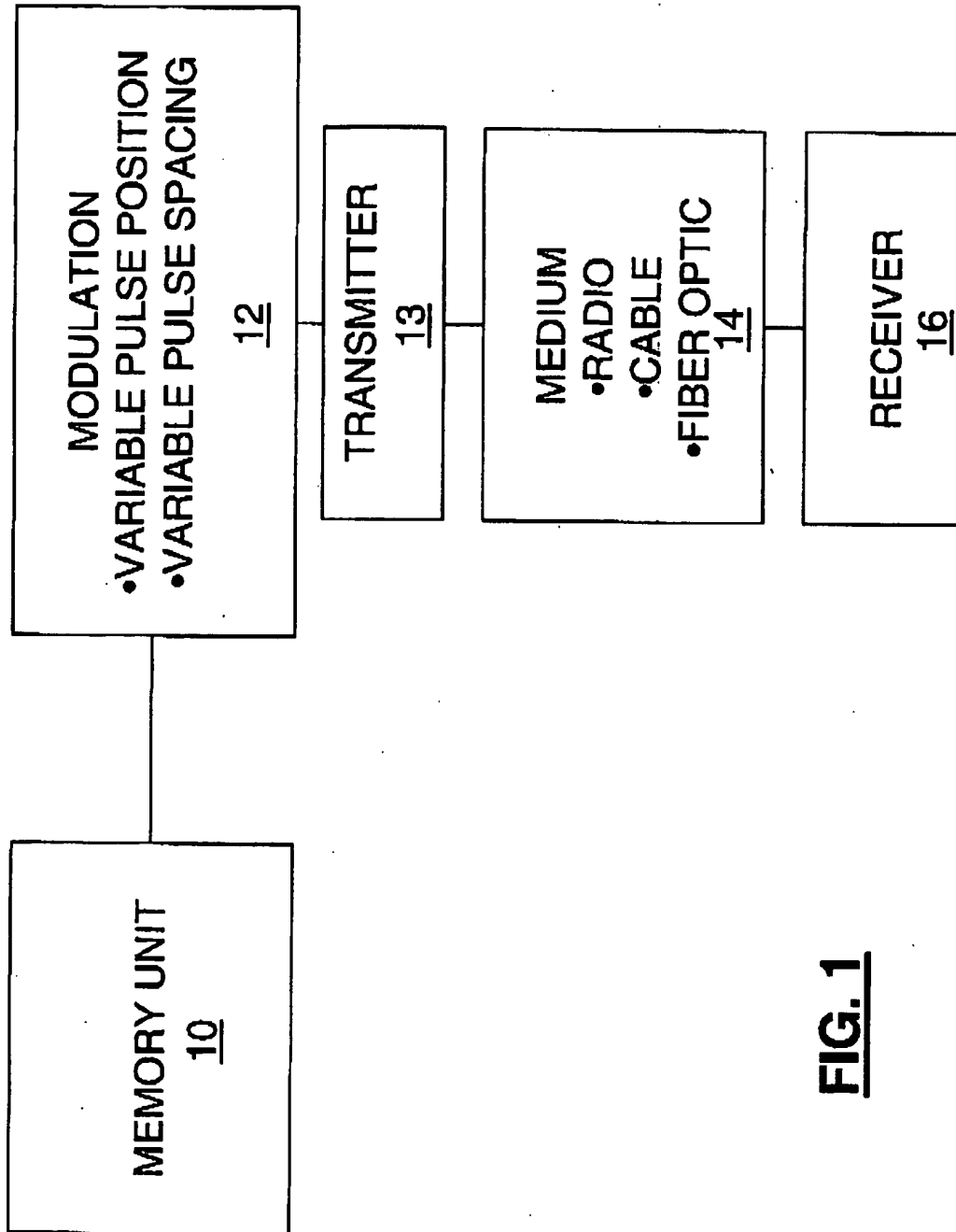


FIG. 1